OnTOPS®

Vol. 2 #3 7/88

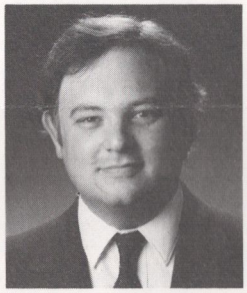
Industry Analysts Impressed by Rapid Growth at TOPS

Rapid sales growth at TOPS has sparked the expansion and diversification of TOPS staff throughout the United States and overseas. In a single year, the staff at TOPS headquarters, now based in Alameda, California, has grown from 55 to over 175 employees. TOPS anticipates that its four other U.S. offices will expand also during the 1988-89 fiscal year.

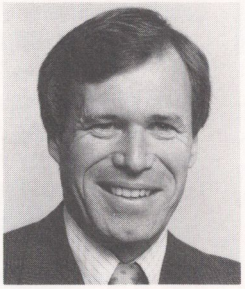
TOPS recently opened an office in England, headed by local expert Ian Milne. Bernard Fisher, well-known industry consultant, has been working with TOPS as acting director of international sales. TOPS views its new office in England as merely the first step in a trend toward establishing TOPS bases throughout Europe.

The two buildings that make up TOPS headquarters in Alameda, California.

Rich Shapero, TOPS general manager



TOPS founder Nat Goldhaber



Bob Clark, TOPS director of product marketing

Bob Clark Joins TOPS Team

Industry analyst Bob Clark recently joined TOPS staff as the Director of Product Marketing. This move by one of the most highly respected LAN authorities in the country has further enhanced TOPS reputation as a strong leader in the networking field. Clark will be responsible for product strategy, microcomputer products, and strategies for TOPS/NFS integration. NFS is Sun Microsystems' network file system, one of the world's most widely used networking standards.

TOPS staff members are excited about Clark's arrival and anticipate that Clark will add substance and creativity to its already vital marketing projects.

"We're delighted that, with so many LAN companies vying for his attention, Bob chose to work for TOPS," says TOPS general manager Rich Shapero. "We're looking

Continued on next page

TOPS Tech Support

Registered users of TOPS are welcome to call TOPS Tech Support for information and advice. TOPS offers service for 90 days after the receipt of each TOPS warranty card. TOPS Tech Support also provides software updates for minor revisions and bug fixes. Please note that updates or upgrades with significant new features may require a fee.

The Tech Support number is:

(415) 769-8711

Tech support services are available Monday through Friday from 8:00 a.m. to 5:00 p.m. Pacific Standard Time. The tech

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forward to a rewarding relationship. We believe that Bob's marketing expertise will further enhance TOPS' leadership position in the connectivity market."

Prior to accepting his post at TOPS, Clark was vice president and senior analyst for Infonetics, Inc. Clark also held several management positions at Corvus Systems, including director of marketing and sales. Before joining Corvus, he spent 10 years working in senior marketing and sales position for DEC System Integrators and OEMs. Thomas White, chairman of Infonetics, calls Clark, "one of the most insightful analysts in the PC LAN industry."

TOPS Brings In Sun Division

In an organizing move intended to smooth the path toward an integrated TOPS/NFS product, Sun Microsystems recently placed its East Coast PC/NFS division under the direction of TOPS. The East Coast Sun division is responsible for developing and marketing Sun products that allow IBM PCs and compatibles to communicate with workstations running NFS. The TOPS networking product for the Sun family of workstations, which allows both PCs and Macintoshes to communicate with a Sun server, is seen as a natural "cousin" to PC/NFS.

TOPS views this move by Sun as acknowledgment of TOPS' strong experience and success in the LAN industry. Furthermore, the reorganization has strengthened TOPS' position as an independent arm of Sun Microsystems, allowing TOPS to enjoy Sun's support and at the same time maintain its own identity.

Goldhaber Supports TOPS

TOPS founder Nat Goldhaber, now a partner in The Cole Gilburne Fund, maintains close ties with TOPS and, in fact, has an office at TOPS headquarters. Goldhaber continues to speak regularly on TOPS' behalf, and participates in company meetings on product and market strategies.

"My ties with TOPS are both personal and practical," says Goldhaber. "The company will always be a part of me, and I hope we'll be able to continue our close association. From a business standpoint, I consider my connections with TOPS to be strategically wise and far-sighted. I expect that TOPS will soon be the number one network product in the world."

The growth of TOPS' staff, along with the implementation of numerous product development, sales, and marketing projects, reflects the movement of TOPS into a position of prominence in the networking industry. Expectations are high, and both Sun and TOPS management are fully committed to providing the resources necessary to develop TOPS in the directions most needed and most desired by end users throughout the world.▼

TOPS Solutions

by Paul Sterngold

Q: ***We want all the IBM PCs and compatibles in our office to print to our LaserWriter Plus. We know TOPS NetPrint allows us to do this. Do we also need to buy TOPS networking software?***

A: No. All you need for each PC is a *TOPS FlashCard*, *TOPS NetPrint*, and a network connector such as a *TOPS TeleConnector*. You also need a network connector for the LaserWriter and enough telephone cable to connect everything together.

Q: ***TOPS Spool was working just fine on my Macintosh until I updated my System and Finder to the latest versions, 4.2/6.0. Now TOPS Spool doesn't spool. What's happening?***

A: Version 5.0 of the LaserWriter and Laser Prep files from Apple are not compatible with TOPS Spool. Use the earlier versions of these files (available on *TOPS/Macintosh* Disk 2) until TOPS updates TOPS Spool (sometime this summer). You also have the option of turning TOPS Spool off and printing directly to your LaserWriter or LaserWriter Plus.

Q: ***We have TOPS on our PCs. When we try to use TPRINT to print to our department LaserWriter, TPRINT returns this message:***

```
LaserWriter Dept. not
found
```

Why isn't TPRINT finding the LaserWriter?

A: Check the name of your printer. If the name consists of more than one word, you must put quotes around the name when accessing the printer from the DOS command line. Otherwise, the computer does not know that the words go together. Example:

```
TPRINT "Name of Laser-
Writer"/N filename/X
```

This is also true when using the *TOPS NetPrint* CONFIGUR command to change LaserWriters. In this case, the command from the DOS command line would look like this:

```
CONFIGUR "L=Name of
Device"
```

Q: ***One of our networked PCs has a local printer attached to its parallel port (LPT1). We want to be able to print to either the local printer or the networked LaserWriter without leaving our applications. But when we load TOPS NetPrint, we can no longer print to our local printer. How can we print to both?***

A: *TOPS NetPrint* intercepts output sent to a parallel port. The default port is LPT1. However, you can configure *TOPS NetPrint* to intercept LPT2 or LPT3 instead.

Change to the TOPS directory (or whatever directory you have installed NetPrint into) by typing:

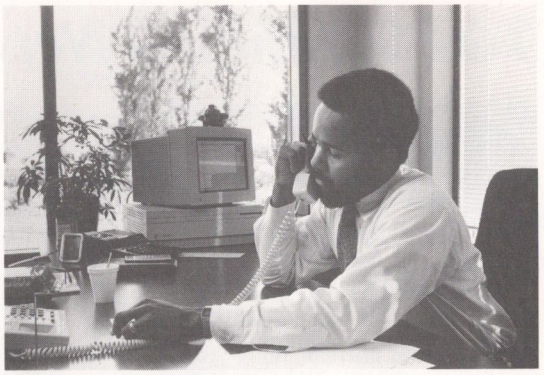
```
CD \Name of Directory
```

Then type: CONFIGUR. This is the NetPrint configuration menu program. Go into the SETUP options and change the port to LPT2. Once you've changed your *TOPS NetPrint* default port, you're ready to print. When you want to print to the local printer, set your application to print to LPT1. When you want to print to the LaserWriter, set your application to print to LPT2.▼

Each network device requires a connector to attach the node to network cables. When buying network software, make sure to ask for TOPS TeleConnectors. TOPS TeleConnectors are reasonably priced and support Flash-Talk™ for PC-to-PC communications.▼

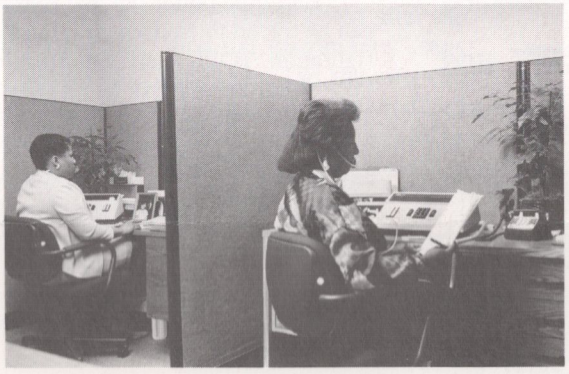
Anna Melillo, TOPS Sales Manager, plans and coordinates a wide range of company telemarketing activities.

Manufacturing Department members Patty Norman, Val Silva, and Leslie Tervit, with their beloved mascot, Todd.

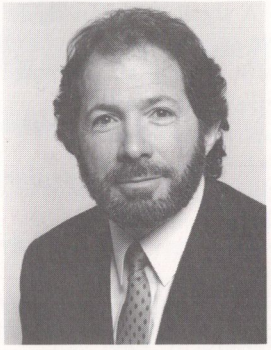


Marc Loupé, TOPS controller, heads up the Finance Department. Loupé joined TOPS just after the Sun acquisition last year.

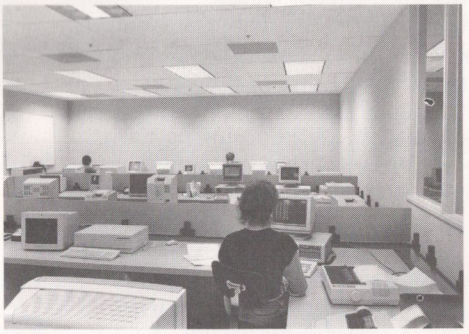
Steve Galletly, Marketing Services Manager, oversees public relations, advertising, and training.



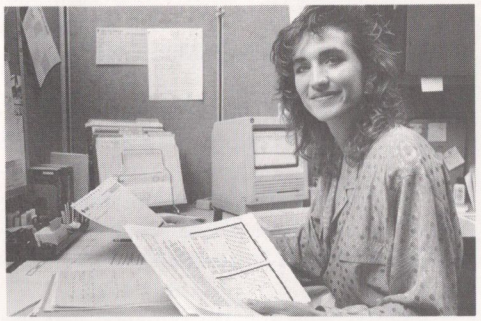
Operators Raycette Allen and Mary Fagan coordinate hundreds of TOPS calls each day, routing inquiries to Tech Support, Sales, and other TOPS departments.



Al Bourdet manages the facilities team.



The new TOPS testing facility, where dozens of products are tested with TOPS to ensure that end users get up-to-date facts about network capabilities.



Sharon McCormick, Product Marketing Assistant, administers the business of the Product Marketing Department.

Theresa Harris, Key Accounts Coordinator, keeps track of sales activities throughout the U.S.

Credit for TOPS' remarkable success goes to the highly skilled staff, whose experience, patience, and creative ideas provide a firm foundation for the development of TOPS products.▼

TOPS' Inhouse Network "Running Like a Champ"

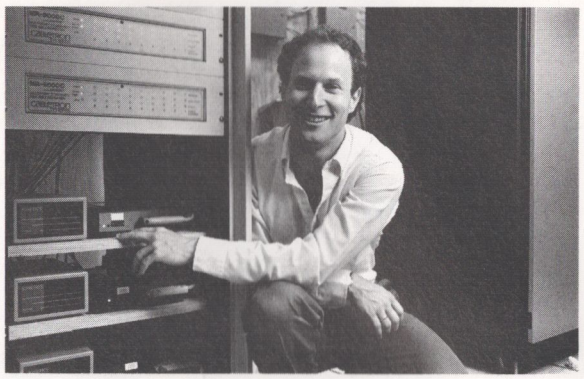
The TOPS Network gets one of its biggest workouts at home, in the two buildings that make up TOPS headquarters in Alameda, California. The 63,000 sq. ft. facility accommodates over 200 Macintoshes, over 75 IBM PCs and compatibles, 10 Sun Workstations, 10 laser printers, one Pyramid minicomputer and one MicroVAX machine. All of these machines are connected over TOPS via an Ethernet backbone and a series of Farallon StarControllers combined with Kinetics FastPaths.

A thick Ethernet cable connects the nerve centers of the two TOPS buildings. Kinetics FastPaths connect individual AppleTalk/TOPS zones to this Ethernet backbone. Within each AppleTalk zone, Farallon StarControllers connect up to 11 workgroups. According to Paul Sterngold, TOPS network administrator, the StarControllers work so efficiently that no other repeater is necessary, except in unusually long StarController "arms" or "runs." Each workgroup is connected in daisy chain formation.

Ethernet devices similar to the StarControllers provide runs of thin Ethernet cabling in all offices as well. This dual setup allows both AppleTalk and Ethnernet connections at each network node.

Sterngold says that the design of the TOPS inhouse network yields maximum network efficiency, and ensures that very few people are affected when individual machines run into trouble.

"The arms off our StarControllers are very short," says Sterngold. "Usually, no more than six people are affected by any one problem. There is virtually nothing that can happen that will completely isolate every machine from the network throughout the system. It"s a very safe setup."



Network administrator Paul Sterngold, with some of TOPS' Farallon StarControllers and Kinetics Fast Paths.

> *"Our TOPS Network handles AppleTalk, EtherTalk, and TCP/IP simultaneously."*

Sterngold points out that typical network problems at TOPS can be traced to equipment failure or inconsistent software configuration. TOPS itself is performing like a champ.

"I don't think I've had a single request for assistance with TOPS software since I've been here," says Sterngold.

The most frequent complaint is that users suddenly "can't see anyone" on the network. The source of the trouble is often a bad cable connection somewhere along the workgroup "run." Educating employees about the importance of solid network connections helps to alleviate this problem.

Users also complain of printing problems when using the company's laser printers. Often, checking to make sure that everyone has compatible printer drivers solves the problem quickly and easily.

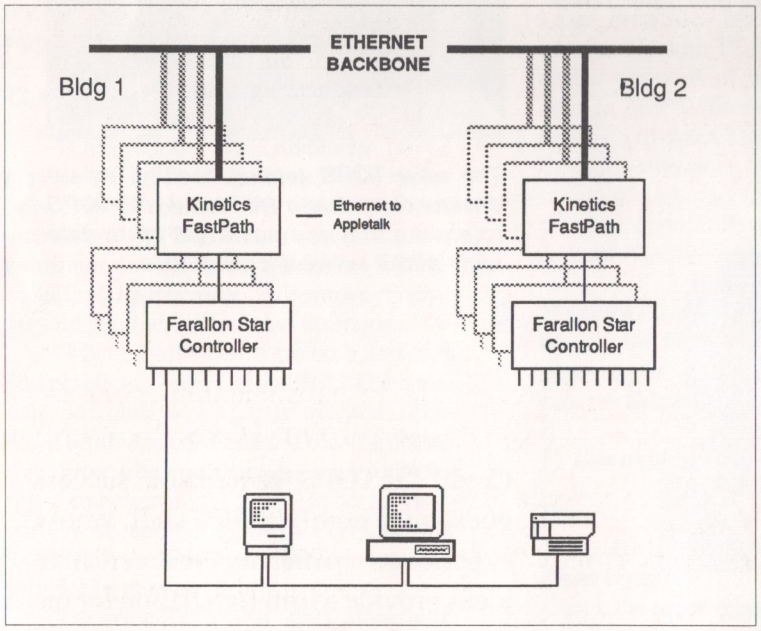
TOPS places some extraordinary demands on its inhouse network. Networks set up by workgroup are common in most companies. But TOPS takes this workgroup formation one step further by allowing all workgroups to communicate with each other.

In addition, the TOPS inhouse network accommodates numerous applications, including TOPS, TOPS Terminal, Think's InBox, laser printing, and large scale application testing. Also, the network must handle AppleTalk, EtherTalk, and TCP/IP simultaneously.

TOPS staff members use the network for personal communications as well as work-related file sharing. The TOPS inhouse network supports both InBox and Sun Microsystems' e-mail. TOPS is connected to Sun's Mountain View facility via a dedicated data phone line hooked into an internetwork router (INR). A local Sun workstation serves as the TOPS e-mail server.

Sterngold is pleased with the performance and dependability of the TOPS inhouse network.

"I'm amazed by the comparative simplicity of TOPS," he says. "Any network is limited to a certain number of nodes before bridging and zones are required. Once that happens, you've introduced a whole new level of complexity to your system. Bridging to another medium, such as Ethernet, takes you one level higher. TOPS is remarkably efficient at handling these challenges."▼



Simplified illustration shows workgroup "arm" connected to Ethernet backbone via AppleTalk device (StarController) and AppleTalk-Ethernet gateway (FastPath).

Network illustration by Bruce Linde

TOPS Tech Support (from page 3)

support number takes Voice Mail messages during other hours.

When you call for tech support, stay near your computer, and have the following information about your network on hand:

- The version of TOPS
- The types and number of computers
- Your system software (e.g., DOS or System/Finder)
- The type of network connectors
- A description of your network topology.

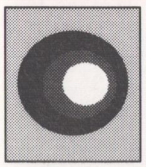
TOPS Tech Support can also be reached electronically over Applelink (address D0098), BIX (TOPS Vendor Support Conference), CompuServe (subtopic TOPS within the AppleVendor Forum), and **TOPS Talk**, the TOPS bulletin board service (415-769-8774; 300/1200/2400 baud, 8 data bits, 1 stop bit, no parity).

Future plans include a TOPS subtopic in the PC Vendor Forum at CompuServe, and extended Tech Support services for registered users.▼

The full range of TOPS products will be exhibited at many upcoming conferences, including:

- **Computerland Int'l Vendor Fair**
  July 8-10
  Vancouver Convention Center
  Vancouver, BC, Canada
- **Macworld Expo**
  August 11-14
  Bayside Expo Center
  Boston, MA
- **DEXPO West**
  October 18-20
  Disneyland Hotel
  Anaheim, CA
- **LocalNet '88**
  November 2-4
  Hynes Convention Center
  Boston, MA
- **COMDEX**
  November 14-18
  Las Vegas Convention Center
  Las Vegas, NV

TOPS International



TOPS Expands Distribution

The TOPS International Sales department has made good on its promise to upgrade and expand distribution overseas. International Sales Manager Jennifer Meighan reports that two new distributors have been signed on in The Netherlands and Belgium and that TOPS has added a "master" distributor in Spain. TOPS has also signed a contract with P&P MicroDistributors, the premiere distributor in England, where TOPS has just opened its first European sales office.

"We're going after the first tier distributors," says Meighan, "so that we can offer our international customers a full service program, including sales promotions, training, technical support, localization of products, and local manufacturing of our software."

TOPS also had a booth at the May Macworld Expo in Amsterdam. "It was the first direct representation of TOPS at a European trade show," says Meighan. "Staff members representing TOPS distributors outside The Netherlands attended as well, and we made sure to provide a number of localized materials." TOPS International staff hopes to attend more overseas trade shows in the future.

Meighan says she's delighted to have PC Robo on board in The Netherlands. Holland is statistically the fifth largest market for all U.S. products. "There's been incredible demand for our products in The Netherlands," says Meighan, "but little distribution and support." PC Robo's efforts will ensure that TOPS achieves maximum visibility and distribution in that country.

AB Computers in Belgium replaces the previous local distributor, and promises to provide increased sales and a broader scope of service for local dealers.

The TOPS U.K. office is becoming well established in the British business community. Managing Director for U.K. sales is Ian Milne, formerly of 3-Com.

Milne will be working closely with P&P MicroDistributors, the largest British distributor of microcomputer products. P&P's experience and strength are expected to help TOPS achieve a leading position in the British software and hardware markets.

Well-known industry figure Bernard Fisher has been working with TOPS on a consulting basis as Managing Director of International Sales. Fisher came to TOPS from Ansa, and previously spent five years establishing and managing the German office of Ashton-Tate. Fisher also lived in Paris for thirteen years, directing operations for Peachtree. Fisher has been based in the TOPS U.K. office.

Initial contacts with overseas distributors, along with research and negotiations, have been provided by the consulting firm International Ventures, represented by its president, Philippe Kuperman. "International Ventures goes after markets and distributors for us while we're building our own resources," says Meighan. "They're doing an outstanding job."

TOPS has made good on its promise to upgrade and expand distribution of TOPS products overseas.

TOPS International distributors include the following:

- AB Computer, Blegium
- Also-ABC, Germany and Austria
- Data Control Group, *Japan*
- Diversitec, *Singapore*
- EIS, *Italy*
- HSC, *Spain*
- Imagineering, *Australia and New Zealand*
- LCE, *France*
- P&P, *England*
- PC Robo, *The Netherlands*
- Software Plus AB, *Sweden*
- Software Plus AS, *Norway*
- Systrade AG, *Switzerland* ▼

TOPS has streamlined the format of **On TOPS**. We now publish a single 8-page newsletter for registered end users and authorized dealers. Call or write to us and tell us what you think.▼

N.Y.C. Dealer Offers Unusual Training Program

Computex, Ltd., based in New York City, is a highly diversified TOPS reseller with a unique line of end user training programs. Since 1981, Computex has developed its comprehensive training services to help customers cope with the growing complexity of software choices and instruction needs. Computex also offers on site research and system evaluations. Computex prides itself on total customer support following initial consultations and training.

The most visible service provided by Computex is a mobile classroom dubbed Comp-U-Van™, which takes computers and instructors directly to training sites. Computex president Katherine Mirrer is excited to report that Computex plans a franchise program for Comp-U-Vans that will make these unique training facilities available throughout the United States. Computex rents and sells Comp-U-Vans as well.

Computex staff members pose for the camera inside their versatile training facility, a mobile classroom called Comp-U-Van™.

One of the special features of Comp-U-Vans is that they look like standard tractor-trailers on the road, but can expand to triple their width on location. The original Comp-U-Van contains ten networked computers and a number of laser printers, all set up to demonstrate a wide range of leading software applications for both Macintosh and DOS-based systems.

Computex staff members are also communications experts, fully qualified to recommend networking solutions and provide training on network systems. Computex frequently recommends TOPS as a quick, easy, and low-cost networking solution. Computex also uses TOPS in their Manhattan office.

In addition to training services, Computex provides temporary and permanent placement services for word processing and computer operators, diskette conversion, and a 24-hour service shop that offers high-quality production, proofreading, and editing of business documents.

Computex is located at 41 East 42nd Street, Suite 705, New York, NY; (212) 661-5770.▼

TOPS Networking '88

From now until December, 1988, the popular presentation, *TOPS Networking '88*, is tentatively scheduled to visit the following cities:

Philadelphia	July
New York	July
Seattle	July
Anaheim	Aug
Toronto	Aug
Wash., DC	Aug
Minneapolis	Sept
Detroit	Sept
Atlanta	Oct
San Diego	Oct
Dallas	Nov
Miami	Nov
Phoenix	Dec

TOPS offers two days of seminars in every city on the schedule, with one morning and one afternoon session each day. The first day is devoted to resellers, the second to end users. All sessions are free. Reservations are made on a first-come-first-served basis.

For information on dates and locations, or to reserve a spot at an upcoming session, call the seminar reservation desk at (415) 769-9669.

Reseller Note

TOPS Sales Team Offers Dealer Incentives

Dealers have already come to expect a high level of expertise and friendliness from the TOPS sales staff. Now, TOPS offers a practical bonus in the form of periodic dealer promotions. TOPS is tailoring these promotions to respond to the specific needs of TOPS dealers, and plans to keep the offers fresh and interesting.

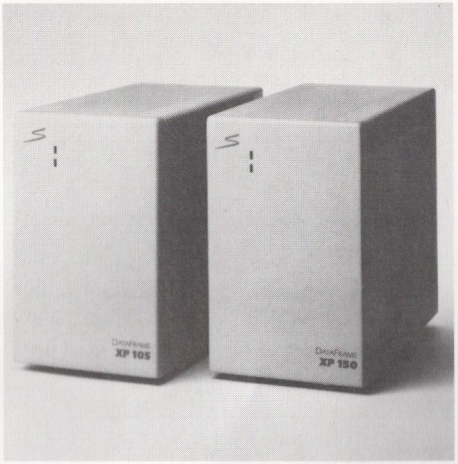
New promotions will be introduced on a regular basis. One recent promotion offered a free *TOPS FlashCard* with the purchase of ten TOPS nodes and a free *TOPS Repeater* with the purchase of five TOPS nodes. The TOPS sales staff always attempts to match TOPS promotions to dealers interests.

"Dealers who have already done business with us know that we like to help out in every way we can," says Brigitte Gwin, TOPS sales supervisor. "We constantly refer end users to local dealers and make sure that our authorized dealers are the first in line for updates, demos, and new products. Our dealers get direct service both before and after each sale."

Gwin adds that TOPS likes to be able to respond to special dealer requests. "Promotions are our way of giving our dealers a little boost and a little bonus," she says.

Interested dealers should stay in touch with their TOPS sales reps in order to keep track of special dealer promotions. TOPS welcomes suggestions regarding future promotions. Dealers who haven't yet talked with their regional sales reps are welcome to call the TOPS sales line for information: (415) 769-8700 or 800-445-TOPS.▼

TOPS thanks Telex Communications for the use of Telex MagnaByte flat screen projectors during "TOPS Networking '88." The equipment projects computer screen images onto large viewing surfaces.▼



DataFrame drives from SuperMac Technology in Mountain View, California. DataFrame drives can add power and storage capacity to a TOPS Network by serving as large volume network servers. Authorized dealers are offering special promotional packages until October 31, 1988.

Who's On TOPS?

Oregon State University

The College of Oceanography at Oregon State University boasts a large TOPS network that is becoming representative of TOPS installations throughout the United States. The College's network connects 25 Sun workstations, three 280-class Sun servers, and over 100 microcomputers. Researchers at the college can share information on site, make telephone calls from remote locations and hook into the network, or send information via microwave signals to the local satellite link, which is indirectly connected to the TOPS network via Sun workstations. Installations like these reveal that TOPS, known primarily as a small business LAN, has been functioning with great success on a much more sophisticated level as well.

Chuck Sears, Communications Network Specialist at Oregon State, praises TOPS' consistent performance in the research environment. The flexibility of TOPS enables the College of Oceanography staff to share and process information on a level inconceivable with their previous, mainframe-only setup.

"Data is processed on the large, number-crunching systems," says Sears, "then sent through the Sun workstations to Macs and PCs for translation into published research material. In many ways, we operate like a newsroom. Information is collected from many sources, but has to end up in single reports or presentations."

By connecting Sun and Apple machines over TOPS, "We get the best of both worlds."

The College of Oceanography supports five different disciplines, each supplied with its own researchers and technicians. The college produces over 300 published articles each year. Graphics associated with the research are produced almost exclusively on networked Macintosh systems by non-technical staff. Staff members use popular microcomputer software, along with customized software for the Sun, written by College staff members. The department also networks a number of laser printers and an Abaton scanner.

Sears is very excited about the network's wide range of capabilities. He points out that college researchers can work on remote Cray supercomputers located in San Diego and Chicago, then transmit information via satellite back to Oregon, where information can eventually reach a linotronic output device through

Continued on next page

TOPS Promotion

SuperMac Packaging TOPS With DataFrame Drives

SuperMac Technology, the producer of DataFrame XP Mass Storage hard disks, has joined with TOPS in a special hardware/software promotion.

Between July 1 and October 31, 1988, large storage SuperMac hard drives (60 mb and higher) will include all the software required to set up a single *TOPS/Macintosh* network node. The offer also applies to SuperMac disks with built-in tape drives and drives with built-in Bernoulli cartridges.

The *TOPS/Macintosh* software, valued at $249, is free to purchasers of these special DataFrame packages during the 3-month promotional period.

According to Pieter Hartsook, TOPS Director of Strategic Alliances, "By teaming up with SuperMac, we're giving new DataFrame users the opportunity to see TOPS in action. The SuperMac drives, especially the larger ones with tape backup built in, make ideal network file servers. Current TOPS users, of course, get a great value by purchasing a SuperMac hard disk with *TOPS/Macintosh* software included."

Many dealers are also carrying special *TOPS/Macintosh* "three-packs," a limited, low-price offer designed to accompany the SuperMac promotional packages.

"Computer users can set up a low cost, fully functioning Macintosh network almost instantly," says Tim Fredel, product manager for *TOPS/Macintosh*. "The combination of TOPS and SuperMac technology can give users a great start in networking."

SuperMac is a recognized leader among producers of hard disks for Macintoshes. DataFrame hard disks are easy to install and provide faster performance than other hard disks on the market. In addition, SuperMac hard disks are compatible with the full line of Macintosh computers. All DataFrame XPs come with five popular utility programs, including the backup utility DiskFit and the security program Sentinel.

The TOPS-SuperMac promotional package includes full documentation for the enclosed *TOPS/Macintosh* software.

Anyone interested in purchasing SuperMac hard drives packaged with TOPS software should check displays at local SuperMac retail stores before October 31, 1988.▼

On TOPS is published by the TOPS Division of Sun Microsystems, 950 Marina Village Parkway, Alameda, California 94501, (415) 769-9669; FAX (415) 769-8772.

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Who's On TOPS? (from previous page)

local microcomputers.

"You can't touch Sun for the technical tools we need in this department," says Sears, "but Apple is just great for desktop publishing. With TOPS, we get the best of both worlds!"

Staff members at the College are all enthusiastic about TOPS. "Everyone likes the flexibility of TOPS' distributed file server architecture," says Sears. "And they enjoy having control. They like to have the ability to query the net and make their own choices about where to go."

Staff members also like TOPS' file translation capabilities and the convenience of accessing information from microcomputers rather than from mainframe terminals.

"You can get whatever you need from your desktop," says Sears. "No more running down the hall for files and reports."

The TOPS installation at Oregon State is becoming very well known for the success of its network. "We get calls morning, noon, and night," says Sears. "Everyone wants to know how to hook up their UNIX systems to microcomputers." Sears adds that he welcomes questions about the Oregon State network and refers users to TOPS on a regular basis.

Sears mentions that, "If you did an update on this article a year from now, I wouldn't be surprised if you found a setup on a university-wide basis. As a matter of fact, as time goes on, I can see myself investing in Sun and TOPS. TOPS really does the job. I don't see how you can lose!"▼

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